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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/551,891

08/28/2006

Martin Vorbach

2885/96

3388

26646

7590

12/05/2008

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EXAMINER

VICARY, KEITH E

ART UNIT

PAPER NUMBER

2183

MAIL DATE

DELIVERY MODE

12/05/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/551,891	Applicant(s) VORBACH, MARTIN	
	Examiner Keith Vicary	Art Unit 2183	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 September 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3-6 is/are pending in the application.
- 4a) Of the above claim(s) 3 and 4 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 5 and 6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 April 2007 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 5-6 are pending in this office action and presented for examination. Claims 1-2 have been previously cancelled, claims 3-4 have been withdrawn from consideration and claims 5-6 have been elected without traverse by election dated 9/23/2008.

Specification

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

3. The disclosure is objected to because of the following informalities. Appropriate correction is required.

4. The "brief description of the drawings" section should reference every figure. Therefore, every figure of Figure 1 (e.g. Fig. 1a, Fig. 1b I, Fig. 1b II, Fig. 1b III, Fig. 1c, fig. 1d, etc) should all be briefly described.

5. The "brief description of the drawings" section describes figures which are not included in the drawings, such as Figures 4b, 4c, 5, and 6a.

6. The "detailed description of the invention" section references figures which are not included in the drawings, such as Figures 4b, 4c, 5, and 6a.

7. The "detailed description of the invention" section does not adequately explain any of the included drawings. For example, the five drawings which make up Figure 1 cannot be merely explained by the disclosure "Data loading and/or writing may typically

take place in small areas of large logic cell fields, while other subareas may be involved in other tasks. Reference is made to Figure 1 for these and other particulars of the present invention.”

Drawings

8. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the operation of a reconfigurable unit having runtime-limited configurations must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

The drawings are objected to for not having consecutive identifiers. For example, Figure 1b III jumps directly to Figure 1f1. Additionally, Figure 4a jumps to Figure 6b.

The drawings are objected to for having an inconsistent labeling scheme. For example, Figure 1 is further subdivided using letters (e.g. Figure 1a) and, if necessary, Roman numerals (e.g. Figure 1b I-III). However, this labeling scheme changes with Figure 1f1 (which uses a further Arabic number instead of a Roman Numeral). Additionally, Figure 2, which encompasses only one figure, does not have a following letter to serve as a designation (e.g. the Figure is labeled Figure 2 instead of Figure 2a) whereas Figures 3 and 4 do not have a following letter. Consequently, it is also further unclear as to whether there are additional relevant but omitted drawings of Figures 3 and 4 given that the presence of the “a” letter identifier implies that there would be.

The drawings are objected to as Figure 6C should be labeled in a similar manner to the other Figure labels and not using an extended arrow as a reference number would use.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Double Patenting

9. Claims 5-6 of this application conflict with claim 15 of Application No. 10501845. 37 CFR 1.78(b) provides that when two or more applications filed by the same applicant contain conflicting claims, elimination of such claims from all but one application may be

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required in the absence of good and sufficient reason for their retention during pendency in more than one application. Applicant is required to either cancel the conflicting claims from all but one application or maintain a clear line of demarcation between the applications. See MPEP § 822.

10. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

11. Claim 5 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 15 of copending Application No. 10501845. Although the conflicting claims are not identical, they are not patentably distinct from each other because each of these claims in the instant application has a corresponding claim in the ‘845 application which contains all elements of the instant claim. (*In re Goodman* 29 USPQ2d 2010 (Fed. Cir. 1993).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

12. Claim 5 of the instant application recites the limitation “increasing, by a configuration, the configuration’s maximum allowed runtime; wherein the increasing is suppressed in response to an interrupt,” which is taught by claim 15 of the '845 application's recital of "for each configuration, monitoring the respective maximum allowed execution runtime in order to interrupt the configuration if the respective maximum allowed execution runtime is exceeded" and “a watchdog is used to recognize an exceedance of each respective maximum allowed execution runtime.” Note that “monitoring the respective maximum allowed execution runtime” and “a watchdog is used to recognize an exceedance of each respective maximum allowed execution runtime” correlates to “increasing, by a configuration, the configuration’s maximum allowed runtime” as some value which represents the watchdog value must be increased for the monitoring to determine the exceedance of a maximum allowed execution runtime. Note that a watchdog does not continue incrementing indefinitely after its threshold value has been reaches, thus the increasing would be suppressed.

13. Claim 6 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 15 of copending Application No. 10501845 in view of Parhami.

This is a provisional obviousness-type double patenting rejection.

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14. Consider claim 6, claim 15 of the '845 application does not disclose that the watchdog counter is a parallel counter, and thus does not disclose the configuration triggers a parallel counter to perform the increasing.

On the other hand, Parhami discloses of a parallel counter (section 1, second paragraph, first line, parallel counter).

Parhami's teaching of a parallel counter achieves higher speeds than regular counters (section 1, first paragraph, last two lines).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teaching of Parhami with the invention of claim 15 of the '845 application in order to achieve higher speeds.

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al. (Smith) (US 6658564 B1) in view of Allen et al. (Allen) (US 7000161 B1) in view of Gee et al. (Gee) (US 6374286 B1).

17. Consider claim 5, Smith discloses of a reconfigurable unit (col. 2, line 46, reconfigurable computer system).

However, Smith does not disclose of increasing, by a configuration, the configuration's maximum allowed runtime; wherein the increasing is suppressed in response to an interrupt.

On the other hand, Allen et al. discloses of increasing, by a configuration, the configuration's maximum allowed runtime (col. 5, line 36-40, the watchdog timer should run continually, and the user application configuration should repeatedly signal the watchdog timer).

However, Smith and Allen do not disclose a motivation to combine the teaching of Allen with the invention of Smith.

On the other hand, Gee discloses using a watchdog timer to enforce context switches and keep the processor running in the event of an error.

Therefore, it would have been obvious to combine the teaching of Allen with the invention of Smith using the motivation of Gee in order to enforce context switches and keep the processing running in the event of an error. Further note that Smith discloses in col. 8, line 10-15, of real-time interrupt handling processes which use resources, and col. 8, line 66 through col. 9, line 4, which discloses of that real-time interrupts may be switched to by allocating programmable logic resources outside predetermined time intervals. Thus, the aforementioned combination further teaches the limitation that the increasing is suppressed in response to an interrupt, as the configuration of Allen or context of Gee, rendered inactive by the interrupt, would not be operable to continue to signal the watchdog timer.

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18. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Smith, Allen, and Gee as applied to claim 5 above, and further in view of Parhami (Parallel Counters for Signed Binary Signals).

19. Consider claim 6, Smith, Allen, and Gee do not disclose that the watchdog counter is a parallel counter, and thus does not disclose the configuration triggers a parallel counter to perform the increasing.

On the other hand, Parhami discloses of a parallel counter (section 1, second paragraph, first line, parallel counter).

Parhami's teaching of a parallel counter achieves higher speeds than regular counters (section 1, first paragraph, last two lines).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teaching of Parhami with the invention of Smith, Allen, and Gee, in order to achieve higher speeds. Note that Parhami's parallel counter, when applied to the environment of the aforementioned combination, teaches the overall limitation that the configuration triggers a parallel counter to perform the increasing.

Conclusion

20. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Crosland et al. (US 7340596) discloses of using a watchdog timer to detect software or hardware failures.

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Keith Vicary whose telephone number is (571)270-1314. The examiner can normally be reached on Monday - Thursday, 6:15 a.m. - 5:45 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie Chan can be reached on 571-272-4162. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Eddie P Chan/
Supervisory Patent Examiner, Art Unit 2183

/Keith Vicary/
Examiner, Art Unit 2183